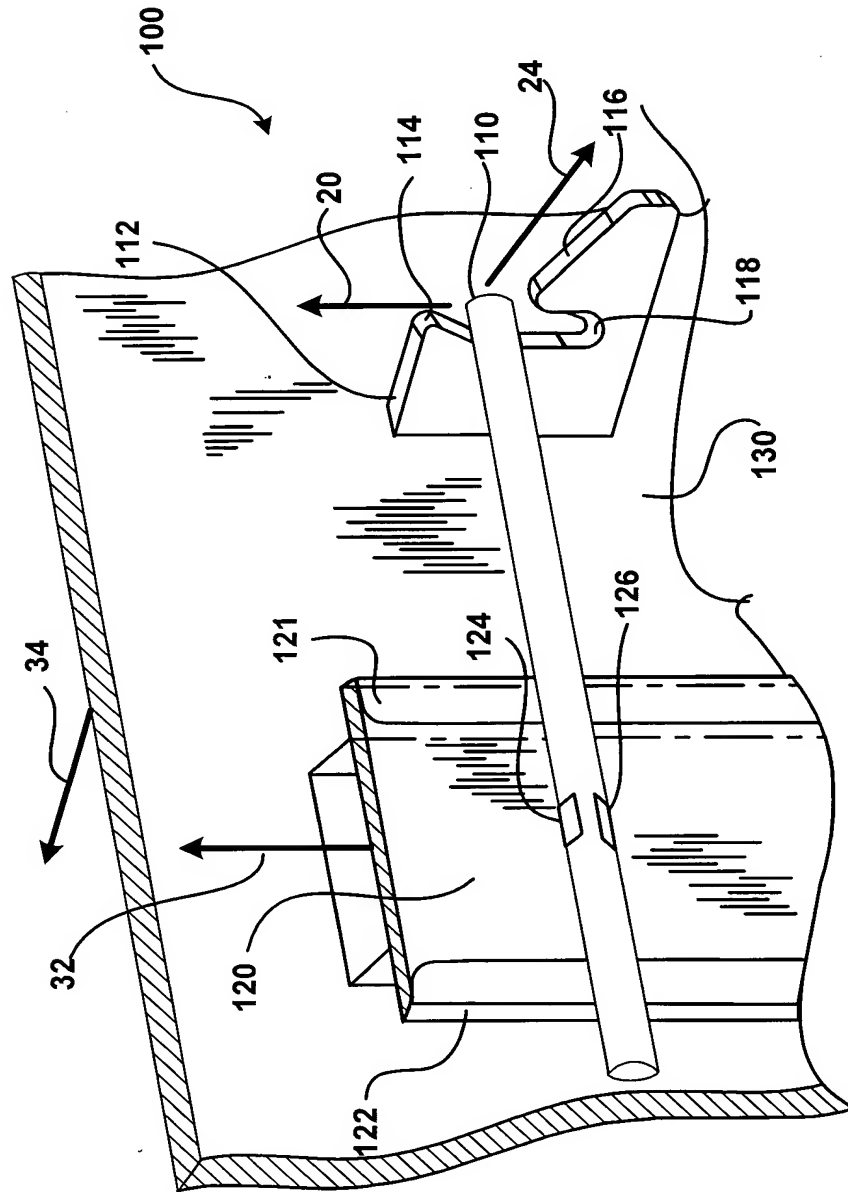


FIGURE 1



The diagram illustrates a mechanical system 300. A cable 306 is shown passing through four rollers or guides labeled 302a, 302b, 302c, and 302d. The cable starts at a fixed point 308 on the right, passes over roller 302a, then under roller 302b, over roller 302c, and finally under roller 302d. Roller 302a is positioned vertically above roller 302b. Roller 302c is horizontally aligned with roller 302b. Roller 302d is positioned vertically above roller 302c. The cable 306 extends from roller 302d to a horizontal member 301 on the left. This member 301 is pivoted at its top end to a vertical support 303. An angle θ is defined between the vertical support 303 and the horizontal member 301. A downward arrow labeled 52 indicates a force applied to the bottom of the vertical support 303. Two dashed circles represent the cross-sections of rollers 302b and 302c, with labels 82 and 83 pointing to them respectively. An angle β is shown between the cable segment between rollers 302b and 302c and the cable segment between rollers 302c and 302d.



FIGURE 4B